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# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 09223912  
 PUBLICATION DATE : 26-08-97

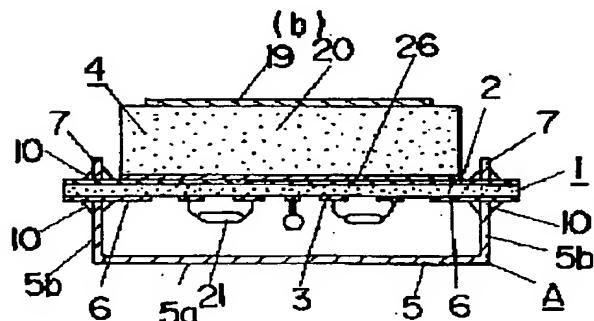
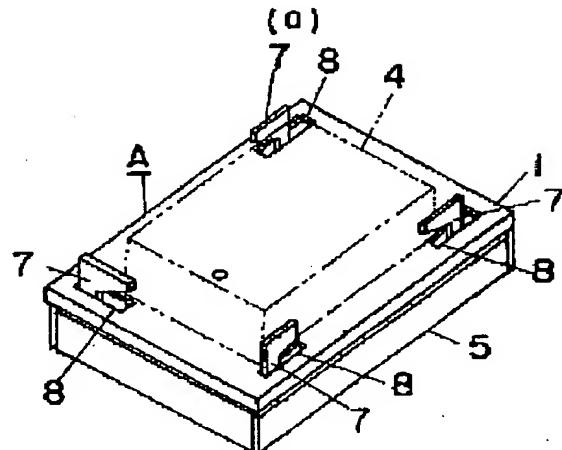
APPLICATION DATE : 15-02-96  
 APPLICATION NUMBER : 08028293

APPLICANT : MATSUSHITA ELECTRIC WORKS LTD;

INVENTOR : FURUTA TAKASHI;

INT.CL. : H01Q 1/27 H01Q 1/24 H01Q 13/08

TITLE : ANTENNA UNIT



**ABSTRACT :** PROBLEM TO BE SOLVED: To improve a shielding property without the need of soldering the entire length of the opening end edge of a shield case.

SOLUTION: For this antenna unit, a conductor layer 2 for grounding is provided on one surface of an amplifier plate 1 and an amplifier circuit 3 is provided on the other surface of the amplifier plate 1. An antenna element 4 is attached to one surface of the amplifier plate 1 and a box-like shield case 5 whose one surface is opened is attached to the other surface of the amplifier plate 1 covering the amplifier circuit 3 inside the opening part. The conductor layer 6 for shielding is formed at the peripheral edge part of the other surface of the amplifier plate 1 and the entire length of the opening end edge of the shield case 5 is made to face the conductor layer 6 for shielding. In this case, the continuous length of a part where a clearance is generated between the opening end edge of the shield case 5 and the conductor layer 6 for shielding is turned to the length equal to or less than 1/4 of the wavelength of a reception frequency. Electromagnetic waves generated from the amplifier circuit 3 are prevented from leaking from the clearance between the opening end edge of the shield case 5 and the conductor layer 6 for shielding.

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